IBM Director 4.0 Support Training

Student Lab Guide

HEI30

12/9/02

xSeries Education

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Preface

This publication is primarily intended for use by students enrolled in the IBM Director 4.0 for BladeCenter, HEI30.

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Table of Contents

Preface **5**

Table of Contents **7**

Safety Precautions and Housekeeping **11**

General Safety Guidelines 11
System Safety 12

Introduction to the Student Lab Guide **13**

Introduction 13
Limitations 13

Lab 1 – Installing IBM Director 4.0 Introduction **15**

Objectives 15
Materials Required for Lab 15
Time Required for Lab 15
Directions - IBM Director 4.0 Installation 15

Lab 2 – IBM Director 4.0 BladeCenter Discovery and Association **18**

Introduction 18
Objectives 18
Materials Required for Lab 18
Firmware, Beta Code and SIT Hardware disclaimer 18
Time Required for Lab 18
Direction – Discover IBM BladeCenter™ 19
Method 2 – Manually Create the IBM BladeCenter™ icon in Director (Optional only use if previous discovery method fails) 20
Directions – Viewing by Association 21

Lab 3 – IBM Director 4.0 Deployment Wizard **22**

Introduction 22
Objectives 22
Materials Required for Lab 22
Firmware, Beta Code and SIT Hardware disclaimer 22
Time Required for Lab 23

Lab 4 – IBM Director 4.0 BladeCenter Management & Configuration Task **27**

Introduction 27

Objectives 27
Materials Required for Lab 27
Firmware, Beta Code and SIT Hardware disclaimer 27
Time Required for Lab 27
Direction – Configuring IBM BladeCenter™ 28
Direction – Managing IBM BladeCenter™ 29

Lab 5 – IBM Director 4.0 BladeCenter Switch Management Launcher 30

Introduction 30
Objectives 30
Materials Required for Lab 30
Firmware, Beta Code and SIT Hardware disclaimer 30
Time Required for Lab 30
Direction – Switch Management for IBM BladeCenter™ 31

Lab 6 – IBM Director 4.0 BladeCenter SNMP Browser 32

Introduction 32
Objectives 32
Materials Required for Lab 32
Firmware, Beta Code and SIT Hardware disclaimer 32
Time Required for Lab 32
Directions – SNMP Browser on IBM BladeCenter™ 33

Lab 7 - IBM Director 4.0 Event Action Plan for Blade Events 34

Lab 7 – Creating and Using Blade Event Action Plans 35

Introduction 35
Objectives 35
Materials Required for Lab 35
Firmware, Beta Code and SIT Hardware disclaimer 35
Time Required for Lab 35
Directions – EAP Wizard 36
Directions – Viewing / Modifying EAPs 38

Lab 8 – IBM Director 4.0: Hardware Status Introduction 40

Objectives 40
Materials Required for Lab 40
Firmware, Beta Code and SIT Hardware disclaimer 40
Time Required for Lab 40
Directions – Using Hardware Status Task 41

Lab 9 – IBM Director 4.0: Update Assistant Introduction 42

Objectives 42

Materials Required for Lab 42
Firmware, Beta Code and SIT Hardware disclaimer 42
Time Required for Lab 42
Directions – Using Update Assistant to import IBM updates 43

Lab 10 – IBM Director 4.0: Software Distribution Introduction 44

Objectives 44
Materials Required for Lab 44
Firmware, Beta Code and SIT Hardware disclaimer 44
Time Required for Lab 44
Directions – Distributing Update Assistant Software Packages 45

Lab 11 – IBM Director 4.0: Flash ID Light and power on / off remotely Introduction 46

Objectives 46
Materials Required for Lab 46
Firmware, Beta Code and SIT Hardware disclaimer 46
Time Required for Lab 46
Directions – Identify the Blade and power it on and off remotely 47

Lab 12 – IBM Director 4.0: Uninstall Introduction 48

Objectives 48
Materials Required for Lab 48
Time Required for Lab 48
Directions – Uninstalling IBM Director 4.0 48

Safety Precautions and Housekeeping

General Safety Guidelines

1. Maintain good housekeeping in the area of the machines during and after completing maintenance/configuration.
2. Do not use solvents, cleaners, or oils that have not been approved by IBM.
3. Lift by standing or pushing up with stronger leg muscles to take the strain off back muscles. Do not attempt to lift any parts or equipment with which you feel uncomfortable. Service personnel are responsible for making certain that no action on his or her part renders a product unsafe or exposes the customer to hazards.
4. Place removed machine covers in a safe out-of-the-way location while servicing the machine. These covers must be back in place on the machine before the machine is returned to the customer.
5. Always place tool kits away from walk areas where no one can trip over them (for example, under a desk or table).
6. Avoid wearing loose clothing that may be caught in machinery. Shirt sleeves must be left buttoned or rolled up above the elbow. Long hair and scarves must be secured.
7. Remove all watches and rings before removing the cover of any system.
8. When servicing a machine, ties must be tucked into shirt or a tie clasp (preferably non-conductive) must be worn approximately three inches from the end.
9. Before starting equipment, make sure that other service or customer personnel are not in a hazardous position.
10. Do not place books, tools, or test equipment on top of the machine.

System Safety

Before beginning any of the lab projects, please review the following safety guidelines:

11. Turn off your display, remove all diskettes from the diskette drive, and unplug the power cord to the system unit before attempting to remove the covers from the system.
12. Use the electrostatic device kit (one should have been provided for your lab group) to minimize the risk of damage to electronic components inside the system. Please ask your instructor for assistance if you do not know how to use an ESD kit.

Note: Avoid touching the internal electronic components unless you are specifically requested to do so within a lab exercise.

Introduction to the Student Lab Guide

Introduction

These lab projects are designed to teach you the skills that have been introduced in the previous topics. In the lab activities, you will practice installing and operating server systems by using the documentation and maintenance philosophy for the systems.

Limitations

1. No computer game playing or copying of games is allowed in this class.
2. Do not copy diskettes on any of the systems in the lab.
3. Do not write on or exchange diskettes with another system.
4. No beverages are allowed at your workstation when the covers are off.
5. You will be expected to practice the proper ESD procedures while performing maintenance on IBM systems.

Lab 1 – Installing IBM Director 4.0

Introduction

In this lab, you will install IBM Director 4.0.

Objectives

At the completion of this lab exercise, you will be able to do the following using IBM Director 4.0:

- Perform the tasks required to discover and mange the BladeCenter.

Materials Required for Lab

- IBM Director 4.0 installation code.
- Server that meets the recommended requirements to run IBM Director 4.0.

Time Required for Lab

The time required to efficiently complete this lab exercise is 20 minutes.

Directions - IBM Director 4.0 Installation

_____**1.** Navigate to the Director 4.0 installation code directory / CD and double click <setup.exe>. Follow the screens and continue the installation for IBM Director Server.

Note: Insert IBM Director Server installs Agent, Console and Server code on the system.

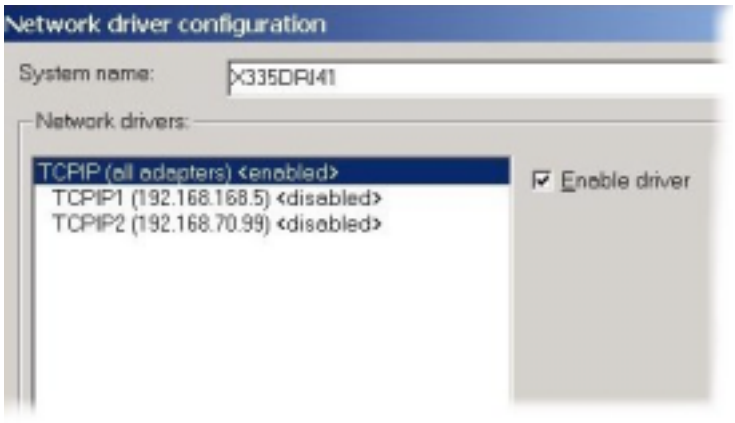
_____**2.** Select <Next>. Read the agreement and select <I accept the terms in the license agreement> then select <Next>. The Feature and installation directory selection screen is displayed.

IBM Director Server - InstallShield Wizard
Feature and installation directory selection
Select the program features you want installed.
Click on an icon in the list below to change how a feature is
IBM Director Server
IBM Director Agent
IBM Director Console
System Health Monitoring
SNMP Access and Trap Forwarding

_____**3.** Click the pull down arrow in front of SNMP Access and Trap Forwarding and select <This feature, and all sub features, will be installed on the local hard drive>. Continue taking the defaults on the installation

_____**4.** The System Settings Change window is displayed. Select <No>, do not restart the server at this point.

_____**5.** Next you will be prompted by the Network driver configuration screen.



_____**6.** Select <TCPIP (all adapters) <enabled>> and check <Enable> driver and <Enable Wake on LAN> then select <OK>.

____**7.** The IBM Director Database configuration window is displayed. Ensure that Microsoft Jet 4.0 is selected and select <Next>.You will be prompted to restart your server select <Yes>.

Congratulations you have successfully installed IBM Director 4.0!

Lab 2 – IBM Director 4.0 BladeCenter Discovery and Association

Introduction

In this lab, you will use IBM Director 4.0 to manage the IBM BladeCenter™.

Objectives

At the completion of this lab exercise, you will be able to do the following using IBM Director 4.0:

- Perform the tasks required to discover and mange the BladeCenter.

Materials Required for Lab

- One IBM BladeCenter™ with at least one HS20
- One IBM Director 4.0 server (49a or later)
- Network connection between the server and the IBM BladeCenter™

Firmware, Beta Code and SIT Hardware disclaimer

These labs were developed on SIT hardware and Beta builds 30a-50B of IBM Director 4.0. The firmware used was at the following levels (and will not match some of the pictures contained in this lab):

IBM Blade Bios = BRE114AUS Version 1
ISMP ROM Build Level = BR8T13a

Management Module firmware =	Main Application firmware	BRET26A
	Boot ROM firmware	BRBR26A
	Remote Control firmware	BRRG26A

Ethernet Switch firmware = 46

As a result these labs may not work identically on GA hardware and software. The labs will be revised when GA code and hardware are available.

Time Required for Lab

The time required to efficiently complete this lab exercise is x hours/xx minutes.

Direction – Discover IBM BladeCenter™

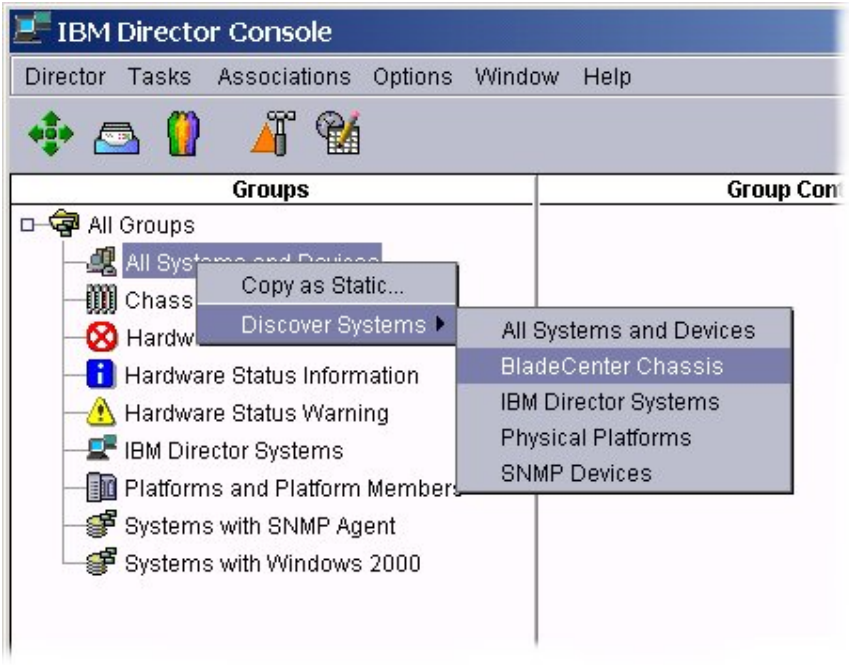
Follow the directions below to create an icon for the IBM BladeCenter™ in Director.

____**1.** When the reboot is finished logon to the Director Server with User ID: **Administrator** and Password: **password**. Power on the BladeCenter on.

NOTE: When the Director Console and Event Action Plan wizard is displayed, Select <Cancel>. We will cover this wizard later.

____**2.** In the Groups pane right click <All Systems> then select <Discover Systems>, <BladeCenter Chassis>.

Note: If BladeCenter is not discovered reset the Management Module and try again.



____**3.** The BladeCenter chassis icon is created in the Group Contents pane.

____**4.** In the Group Contents pane <right click> the BladeCenter icon and select <Request Access>. You will be prompted for the Userid and Password enter **USERID PASSW0RD** where the o in password is a zero 0**.** Select <OK> on the Access granted prompt.
Note: Complete discovery will take several minutes. Please be patient. Dire

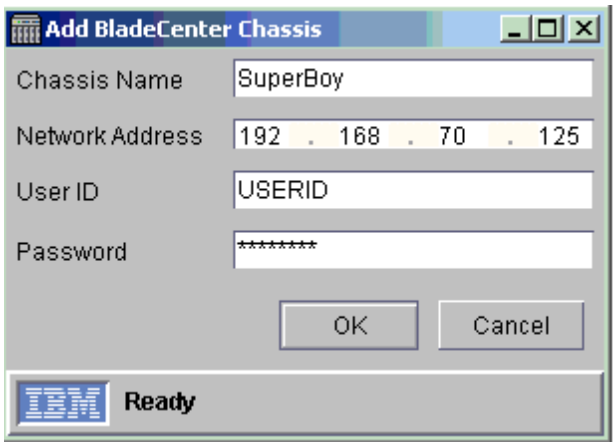
Congratulations you have discovered the BladeCenter chassis and it's members.

Method 2 – Manually Create the IBM BladeCenter™ icon in Director (Optional only use if previous discovery method fails)

If the BladeCenter chassis is on a remote network, IBM Director cannot discover the BladeCenter chassis automatically. You must manually create the BladeCenter Chassis managed object before you can run the BladeCenter Deployment wizard.

____**1.** Right Click in the Group Contents pane, select <New>, <BladeCenter Chassis>

____**2.** When the Add BladeCenter Chassis window appears enter a name, the network address of the management module (the default address), USERID and PASSW0RD (the 0 is a zero). Click <OK>

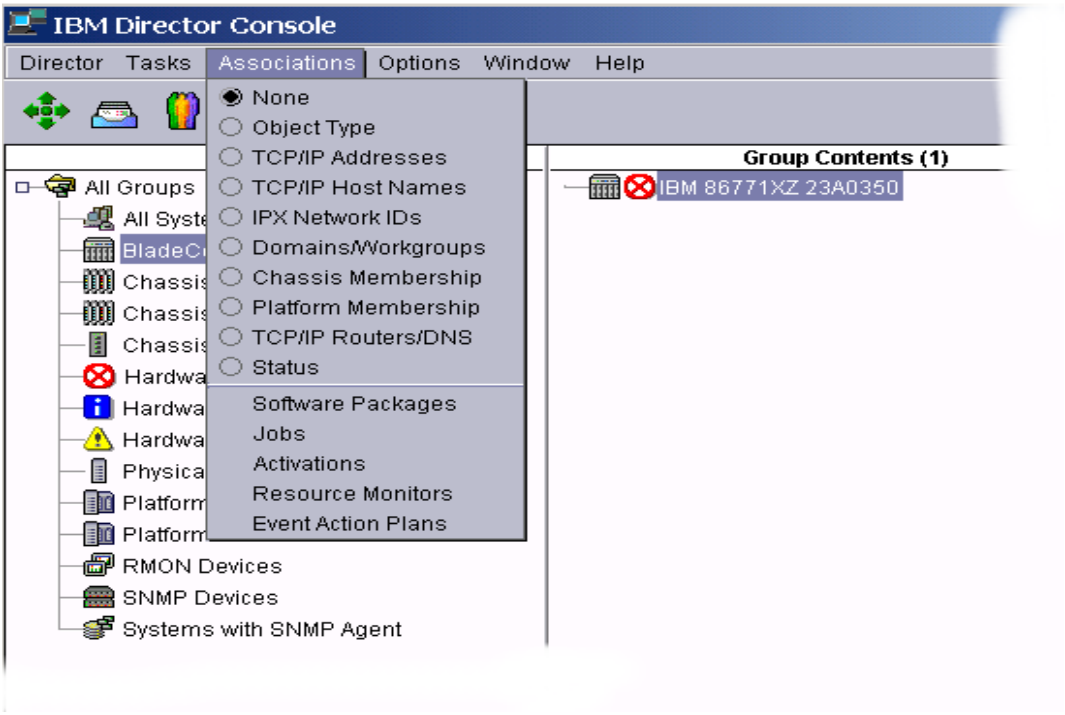


____**3.** The BladeCenter Chassis icon is created in the Group Contents pane.

Directions – Viewing by Association

You can use associations to display the groups in the Group Contents pane in a logical ordering. For example, if you select the object type association, the managed systems and devices are grouped based on whether they are IBM Director managed systems, SNMP devices, or chassis; also, racks and platforms are displayed as groups in the Group Contents pane.

____**1.** Select the BladeCenter in the Group Contents pane and then select <Associations> form the console menu and observe the changes in the Group Contents as you choose the different associations.



____**2.** When finished return Associations to <None>.

Congratulations, you have successfully completed this Lab.

Lab 3 – IBM Director 4.0 Deployment Wizard

Introduction

In this lab, you will use IBM Director 4.0 to deploy the IBM BladeCenter™.

Objectives

At the completion of this lab exercise, you will be able to do the following using IBM Director 4.0:

- Configure a BladeCenter chassis, including setting up security profiles (username and password), enabling network protocols, and assigning IP addresses for both the BladeCenter management modules and switch modules.
- Create a reusable profile that can be used to automatically configure new BladeCenter chassis when they are added to the IBM Director environment.

Materials Required for Lab

- One IBM BladeCenter™ with at least one HS20
- One IBM Director 4.0 server
- Network connection between the server and the IBM BladeCenter™

Firmware, Beta Code and SIT Hardware disclaimer

These labs were developed on SIT hardware and Beta builds 30a-50B of IBM Director 4.0. The firmware used was at the following levels (and will not match some of the pictures contained in this lab):

IBM Blade Bios = BRE114AUS Version 1
ISMP ROM Build Level = BR8T13a

Management Module firmware =	Main Application firmware	BRET26A
	Boot ROM firmware	BRBR26A
	Remote Control firmware	BRRG26A

Ethernet Switch firmware = 46

As a result these labs may not work identically on GA hardware and software. The labs will be revised when GA code and hardware are available.

Time Required for Lab

The time required to efficiently complete this lab exercise is x hours/xx minutes.

Directions – Deploying IBM BladeCenter™

Follow the directions below to create to deploy IBM BladeCenter™ using Director 4.0.

____**1.** In the Group Contents pane right click the BladeCenter object and select <Deployment Wizard>. Or drag and drop Deployment Wizard from the Tasks pane to the BladeCenter object. Select <Next> on the Change user name and password screen.

____**2.** In the User name field type **USERID** and in the password and password confirm field type **PASSW0RD** where O is a zero.

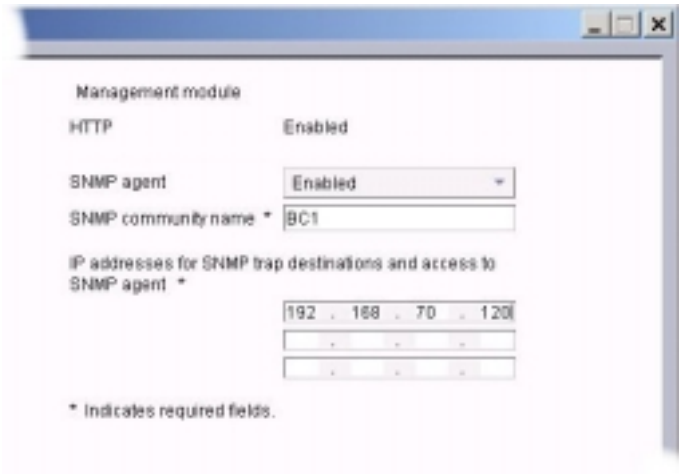
Note: The factory default for user name and password are being used to reduce the chances of being locked out of the management module.

____**3.** Select <Next>. The name, contact, location screen is displayed. Leave the Management module name field blank. In the Contact information field type **Administrator** and type **B203, FF122** in the Location field.

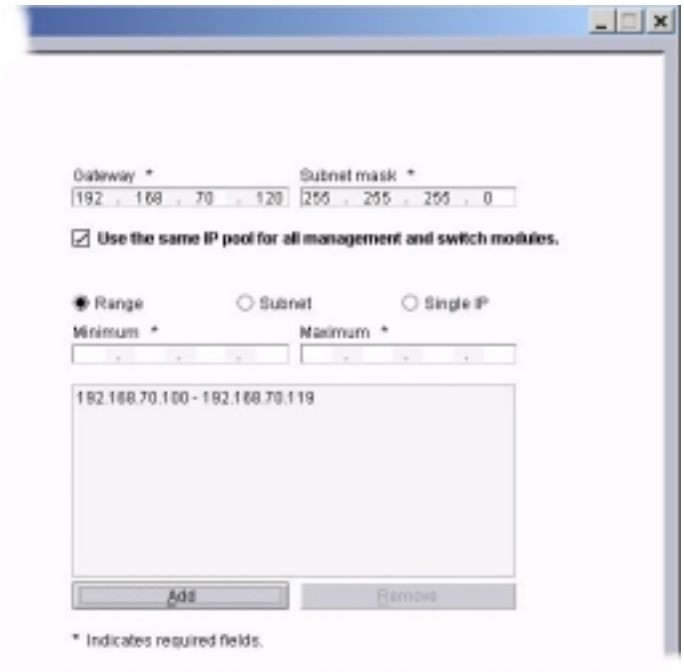
Question: Why was the management module name left blank in the previous step?

_____
_____
_____
_____

____4. Select <Next>. The Configure the management module protocols screen is displayed. In the SNMP agent pull down select <Enabled>. In the SNMP community name field type PUBLIC and in the SNMP IP fields type the IP address of your IBM Director Management server.

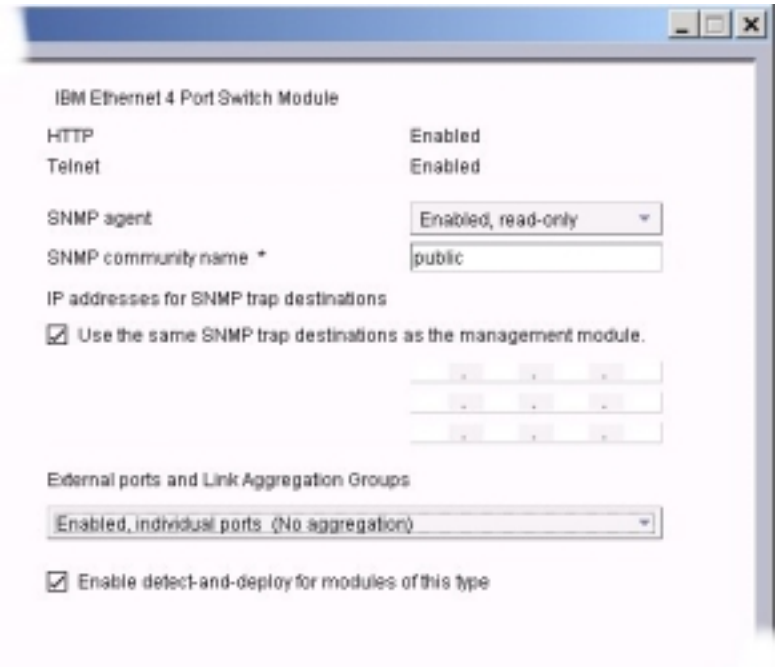


____5. Select <Next>. The Configure the IP settings screen is displayed. Read the left pane of this screen. In the Gateway field type IP address of your IBM Director Management server, in the Subnet mask field type **255.255.255.0** leave the checkbox checked and select the Range radio button. Now in the Minimum field type **192.168.70.100** and in the Maximum field type **192.168.70.119**. Select <Add>.



_____**6.** Select <Next>. The Change the username and password for switch modules screen is displayed. Make sure the Use the same user name and password as the management module check box is checked.

_____**7.** Select<Next>. The Configure the switch module screen is displayed. In the SNMP community name field type **PUBLIC** and place a check mark in the Enable detect-and-deploy for modules of this type check box. Use the pull-down menu to explore the External Ports and Link Aggregation Groups options.



_____**8.** Question: Which aggregation method produces the maximum bandwidth?

_____

_____

_____

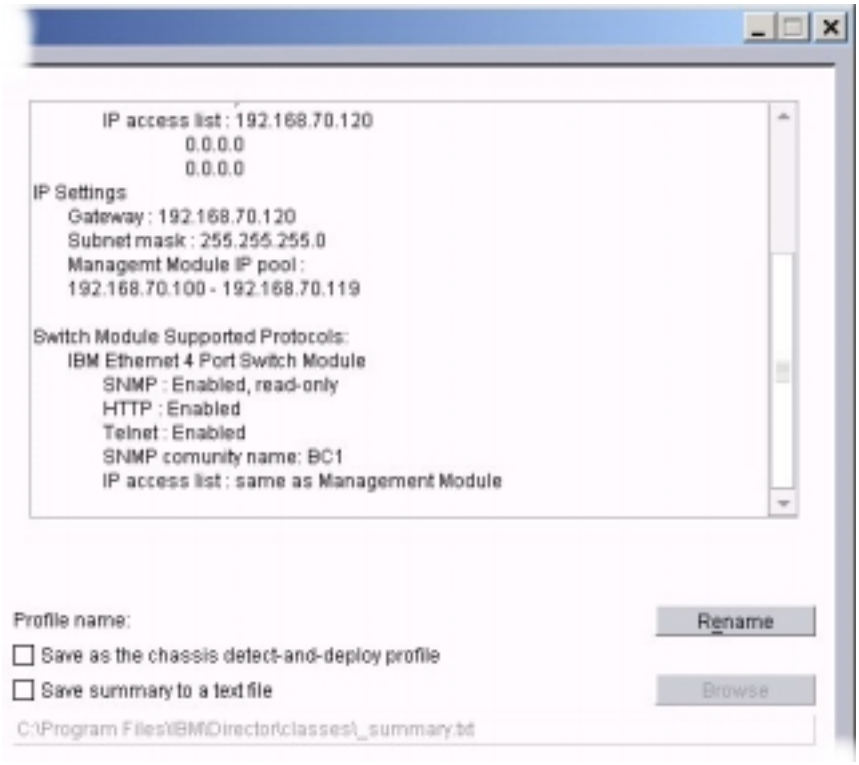
_____

_____

_____**9.** Select <Next>. The Deploy operating systems on the blade servers screen is displayed. This screen is basically an advertisement for Remote Deployment Manager which includes the URL for RDM.

Note: RDM will be a plug in for Director 4.1.

_____**10.** Select <Next>. The Setup summary screen is displayed. Review the information and use the Back button if you need to make any corrections.



_____**11.** Select <Rename> and type **BCDate** as the new name for the profile. Select <Apply>.

Note: Date in BCDate should be replaced by today's date.

_____**12.** Check both the Save as the chassis detect-and-deploy profile and the Save summary to a text file check boxes the select <Finish>.

Question: What is the name and path information for the text file? (Answers will vary form the picture above.)

_____

_____

_____

_____**13.** Select <Execute Now> when prompted. The Status screen is displayed. When status is complete close the status window.

Congratulations you have successfully deployed the BladeCenter Chassis.

Lab 4 – IBM Director 4.0 BladeCenter Management & Configuration Task

Introduction

In this lab, you will use IBM Director 4.0 to manage and configure IBM BladeCenter™.

Objectives

At the completion of this lab exercise, you will be able to do the following using IBM Director 4.0:

- Perform the tasks required to configure and mange the BladeCenter.

Materials Required for Lab

- One IBM BladeCenter™ with at least one HS20
- One IBM Director 4.0 server
- Network connection between the server and the IBM BladeCenter™

Firmware, Beta Code and SIT Hardware disclaimer

These labs were developed on SIT hardware and Beta builds 30a-50B of IBM Director 4.0. The firmware used was at the following levels (and will not match some of the pictures contained in this lab):

IBM Blade Bios = BRE114AUS Version 1
ISMP ROM Build Level = BR8T13a

Management Module firmware =	Main Application firmware	BRET26A
	Boot ROM firmware	BRBR26A
	Remote Control firmware	BRRG26A

Ethernet Switch firmware = 46

As a result these labs may not work identically on GA hardware and software. The labs will be revised when GA code and hardware are available.

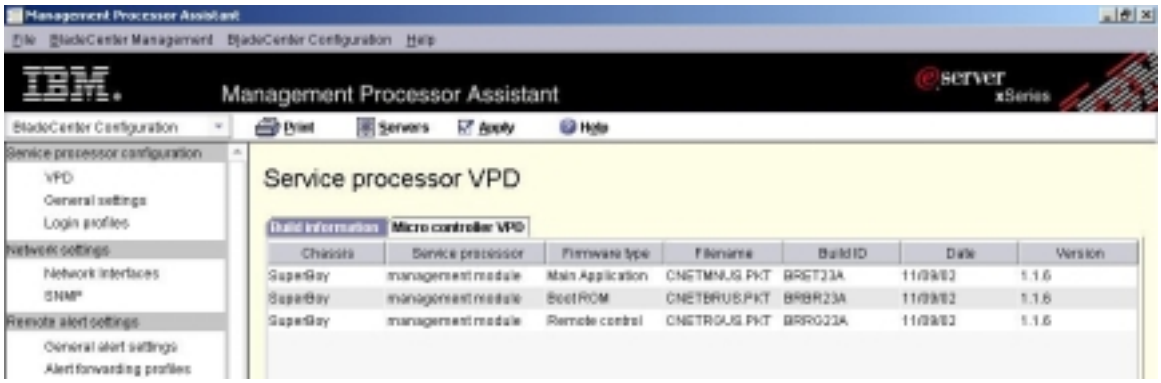
Time Required for Lab

The time required to efficiently complete this lab exercise is x hours/xx minutes.

Direction – Configuring IBM BladeCenter™

Follow the directions below to configure an IBM BladeCenter™ using Director.

____1. In the group contents pane right click a BladeCenter chassis then select <BladeCenter> <BladeCenter Configuration> to bring up the Management Processor Assistant.. Select <VPD> >. The Service Processor VPD information is displayed



Question: What are the firmware types and the build IDs for the IBM BladeCenter™ management module? (Answers will vary from answers in picture.)

_____

_____

_____

____2. Select < Login profiles> and add another UserID with Read only access.

____3. Select < Network Interfaces>.

Question: What is the MAC Address of the external management module Ethernet port?

_____

_____

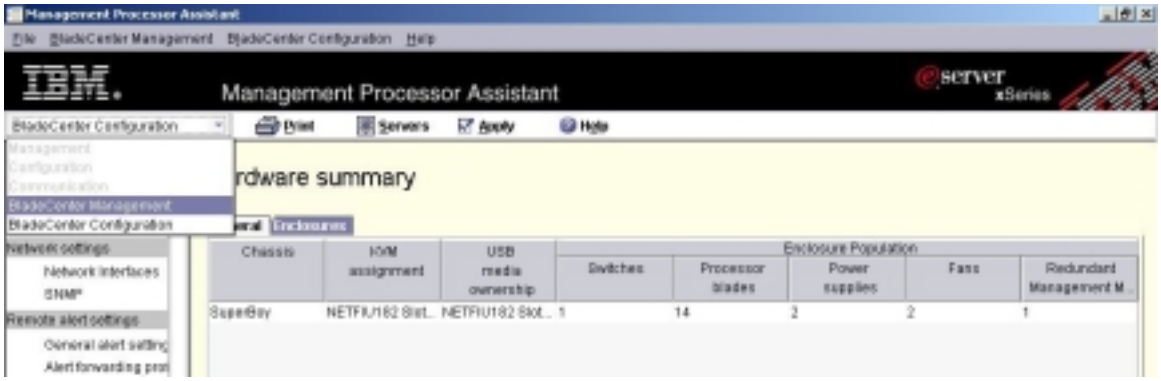
_____

____4. Continue to explore the remaining tasks associated with the Management Processor Assistant.

Direction – Managing IBM BladeCenter™

Follow the directions below to view the management data for the IBM BladeCenter™ in Director.

____5. In the Manager Processor Assistant window select the BladeCenter Management feature from the drop down list.



____6. Select the BladeCenter Management task you wish to view or configure. Select each management task and view the information pulled by the system management processor as called by the Management Module.

NOTE: Any information that must come from the Blade Server must be pulled via the SMP for the Management Module (i.e. Temperatures, Voltages, Power Control, some Boot Assignments and some Wake on LAN data). All other data is pulled directly via the Management Module.

____7. Exit the Management Processor Assistant window and you will be returned to the Director Management Console window.

NOTE: Disk BackPlane temperatures only work for SCSI.

Congratulations, you have completed this portion of the Lab.

Lab 5 – IBM Director 4.0 BladeCenter Switch Management Launcher

Introduction

In this lab, you will use IBM Director 4.0 to manage the IBM BladeCenter™ switch.

Objectives

At the completion of this lab exercise, you will be able to do the following using IBM Director 4.0:

- Perform the tasks required to do switch management on the IBM BladeCenter™ .

Materials Required for Lab

- One IBM BladeCenter™ with at least one HS20
- One IBM Director 4.0 server
- Network connection between the server and the IBM BladeCenter™

Firmware, Beta Code and SIT Hardware disclaimer

These labs were developed on SIT hardware and Beta builds 30a-50B of IBM Director 4.0. The firmware used was at the following levels (and will not match some of the pictures contained in this lab):

IBM Blade Bios = BRE114AUS Version 1
ISMP ROM Build Level = BR8T13a

Management Module firmware =	Main Application firmware	BRET26A
	Boot ROM firmware	BRBR26A
	Remote Control firmware	BRRG26A

Ethernet Switch firmware = 46

As a result these labs may not work identically on GA hardware and software. The labs will be revised when GA code and hardware are available.

Time Required for Lab

The time required to efficiently complete this lab exercise is x hours/xx minutes.

Direction – Switch Management for IBM BladeCenter™

Follow the directions below to manage the IBM BladeCenter™ switches with Director.

____1. In the Group pane select the Chassis Ethernet Switch Members Group to display the switch information in the Group Contents pane. In the Task pane display the BladeCenter Tasks to see the Switch Management Launcher (SWL). Drag and drop the SWL to a switch group in the Group Contents pane.

____2. The DLink Switch Module software is launched and the switch information will be displayed. Select the twisty beside Configuration to display the subtasks for that option. Select each subtask to view the data.

Close the Switch Management Launcher Application and you will be returned to the IBM Director Console.

Question: In what types of situations would you find this information useful? Be prepared to discuss in class**.**

You have successfully completed this lab.

Lab 6 – IBM Director 4.0 BladeCenter SNMP Browser

Introduction

In this lab, you will use IBM Director 4.0 to reveal SNMP information on the IBM BladeCenter™ switch modules.

Objectives

At the completion of this lab exercise, you will be able to do the following using IBM Director 4.0:

- Perform the tasks required to do switch management on the IBM BladeCenter™

Materials Required for Lab

- One IBM BladeCenter™ with at least one HS20
- One IBM Director 4.0 server
- Network connection between the server and the IBM BladeCenter™

Firmware, Beta Code and SIT Hardware disclaimer

These labs were developed on SIT hardware and Beta builds 30a-50B of IBM Director 4.0. The firmware used was at the following levels (and will not match some of the pictures contained in this lab):

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ISMP ROM Build Level = BR8T13a

Management Module firmware =	Main Application firmware	BRET26A
	Boot ROM firmware	BRBR26A
	Remote Control firmware	BRRG26A

Ethernet Switch firmware = 46

As a result these labs may not work identically on GA hardware and software. The labs will be revised when GA code and hardware are available.

Time Required for Lab

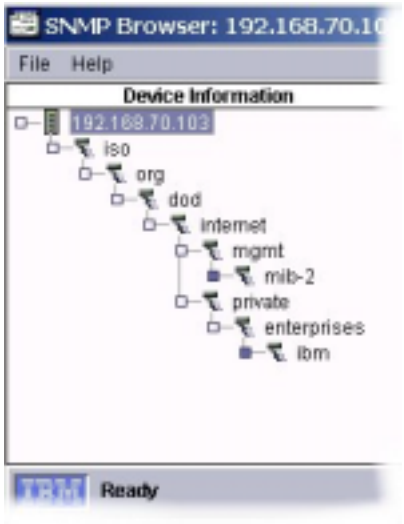
The time required to efficiently complete this lab exercise is xx hours/xx minutes.

Directions – SNMP Browser on IBM BladeCenter™

Follow the directions below to use the SNMP Browser on the IBM BladeCenter™

____1. In the Groups pane right click <SNMP Devices> then expand the folder that is displayed in the Group Contents pane the SNMP devices in your BladeCenter are displayed.

____2. Right click one of the SNMP devices and select <SNMP Browser> or drag and drop SNMP Browser from the Tasks pane to one of the SNMP devices the SNMP Browser window is displayed.



____3. This window enables you to view information, set community names for individual systems and set attributes for SNMP and RMON devices. Navigate this interface and answer the following question.

Question: Who is the System contact and where is the system located?

_____

_____

____4. When you are finished browsing the SNMP information close the SNMP Browser.

Congratulations you have completed this lab.

Lab 7 - IBM Director 4.0 Event Action Plan for Blade Events

!!!DO NOT PROCEED UNTIL YOU HAVE READ THIS OVERVIEW!!!
!!!DO NOT PROCEED UNTIL YOU HAVE READ THIS OVERVIEW!!!
!!!DO NOT PROCEED UNTIL YOU HAVE READ THIS OVERVIEW!!!

Event Action Plans tell IBM Director what to do if an alert is received. This lab will guide you through the Event Action Plan (EAP) wizard that starts by default when you start IBM Director 4.0. It is a good idea to set up your basic EAPs when you first start Director. However, be sure that you don't over do it. Only create EAPs that will notify you of things you really need to know.

What is about to happen?

You are about to use the EAP wizard on IBM Director 4.0 to establish the default event action plans.

By doing this exercise, you will be able to Use IBM Director 4.0 EAP Wizard to:

1. Select the event filters you wish to setup.
2. Select and configure notification methods for selected events.
3. Use EAP Builder to verify the action plans created by the EAP wizard.

Finally, please remember the following:

1.Put the system back into the state you found it
2.Keep the work area tidy
3.Share your knowledge. If you can answer someone's question correctly, please do so.

!!!DO NOT PROCEED UNTIL YOU HAVE READ THIS OVERVIEW!!!
!!!DO NOT PROCEED UNTIL YOU HAVE READ THIS OVERVIEW!!!
!!!DO NOT PROCEED UNTIL YOU HAVE READ THIS OVERVIEW!!

Lab 7 – Creating and Using Blade Event Action Plans

Introduction

In this lab, you will establish the base event action plans for IBM Director 4.0.

Objectives

At the completion of this lab exercise, you will be able to do the following:

- Create EAPs using the EAP Wizard.
- View / modify the EAPs that were created using the Event Action Plan Builder.
- Assign EAPs to BladeCenter chassis.
- Generate and respond to a Fan removal alert.

Materials Required for Lab

- One IBM Director 4.0 server. (Lab was written using beta build 28a of Director 4.0)
- BladeCenter BIOS 6.0a

Firmware, Beta Code and SIT Hardware disclaimer

These labs were developed on SIT hardware and Beta builds 30a-50B of IBM Director 4.0. The firmware used was at the following levels (and will not match some of the pictures contained in this lab):

IBM Blade Bios = BRE114AUS Version 1
ISMP ROM Build Level = BR8T13a

Management Module firmware =	Main Application firmware	BRET26A
	Boot ROM firmware	BRBR26A
	Remote Control firmware	BRRG26A

Ethernet Switch firmware = 46

As a result these labs may not work identically on GA hardware and software. The labs will be revised when GA code and hardware are available.

Time Required for Lab

The time required to efficiently complete this lab exercise is 30 minutes.

Directions – EAP Wizard

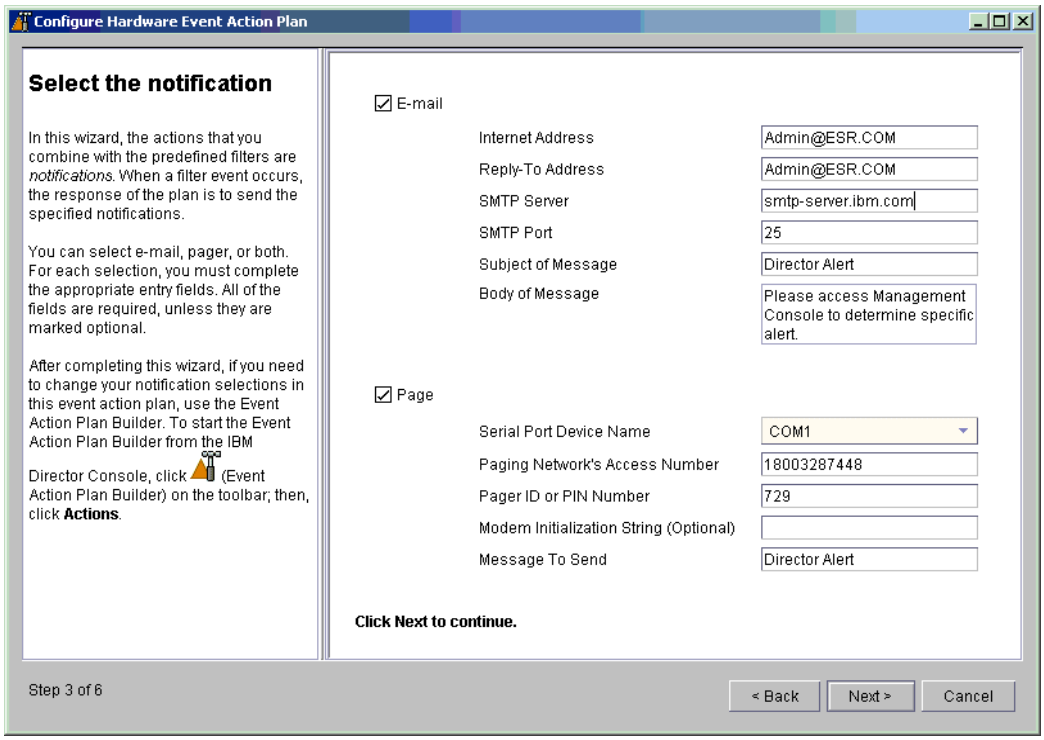
Complete the following steps to establish your initial event action plans.

____1. Select <Start> <Programs> <IBM Director Management Console> .The Management Console is opened and the EAP Wizard is displayed by default.

NOTE: EAP Wizard is displayed every time the Management Console is started until you select the **Do not show this wizard again** checkbox.

____2. Read the Welcome screen and select <Next>. In the Select event filters screen, select all the choices and select <Next>.

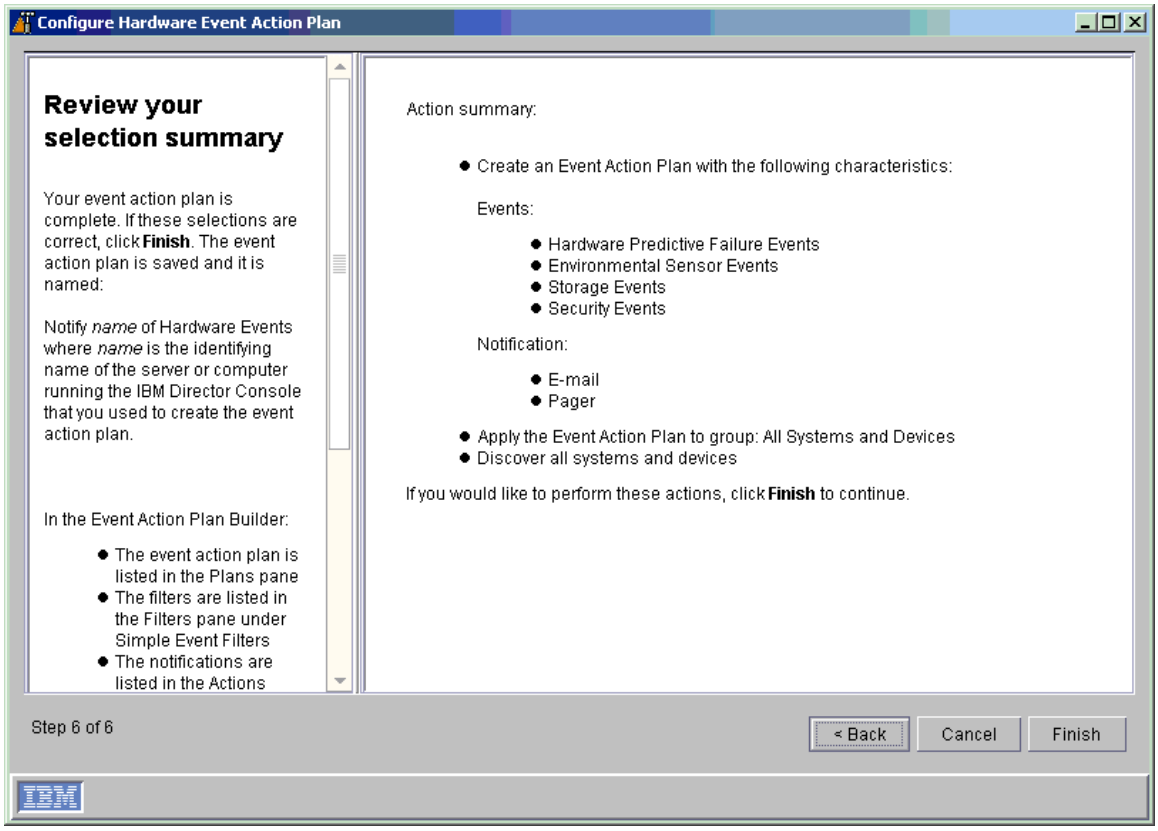
____3. In the Select the notification screen fill in the desired E-mail and Pager information and select <Next>.


Configure Hardware Event Action Plan
Select the notification
In this wizard, the actions that you combine with the predefined filters are notifications. When a filter event occurs, the response of the plan is to send the specified notifications.
You can select e-mail, pager, or both. For each selection, you must complete the appropriate entry fields. All of the fields are required, unless they are marked optional.
After completing this wizard, if you need to change your notification selections in this event action plan, use the Event Action Plan Builder. To start the Event Action Plan Builder from the IBM Director Console, click (Event Action Plan Builder) on the toolbar; then, click Actions.
E-mail
Internet Address
Admin@ESR.COM
Reply-To Address
Admin@ESR.COM
SMTP Server
smtp-server.ibm.com
SMTP Port
25
Subject of Message
Director Alert
Body of Message
Please access Management Console to determine specific alert.
Page
Serial Port Device Name
COM1
Paging Network's Access Number
18003287448
Pager ID or PIN Number
729
Modem Initialization String (Optional)
Message To Send
Director Alert
Click Next to continue.
Step 3 of 6
< Back
Next >
Cancel

____4. Check the box Apply the event action and select <Next>.

____5. Check the box to Discover All Systems and devices and select <Next>

____**6.** The Review your selection summary screen is displayed. Select <Finish>.


Configure Hardware Event Action Plan
Review your selection summary
Your event action plan is complete. If these selections are correct, click Finish. The event action plan is saved and it is named:
Notify name of Hardware Events where name is the identifying name of the server or computer running the IBM Director Console that you used to create the event action plan.
In the Event Action Plan Builder:
The event action plan is listed in the Plans pane
The filters are listed in the Filters pane under Simple Event Filters
The notifications are listed in the Actions
Action summary:
Create an Event Action Plan with the following characteristics:
Events:
Hardware Predictive Failure Events
Environmental Sensor Events
Storage Events
Security Events
Notification:
E-mail
Pager
Apply the Event Action Plan to group: All Systems and Devices
Discover all systems and devices
If you would like to perform these actions, click Finish to continue.
Step 6 of 6
< Back
Cancel
Finish
IBM

Directions – Viewing / Modifying EAPs

____1. From the IBM Director Management Console select <Tasks> <Event Action Plan Builder> or select < > from the icon bar. The Event Action Plan Builder window is displayed.

____2. In the Event Action Plans pane expand Event Action Plan section to display the EAPs that were created by the EAP wizard.

Question 1: What event action plans are listed?

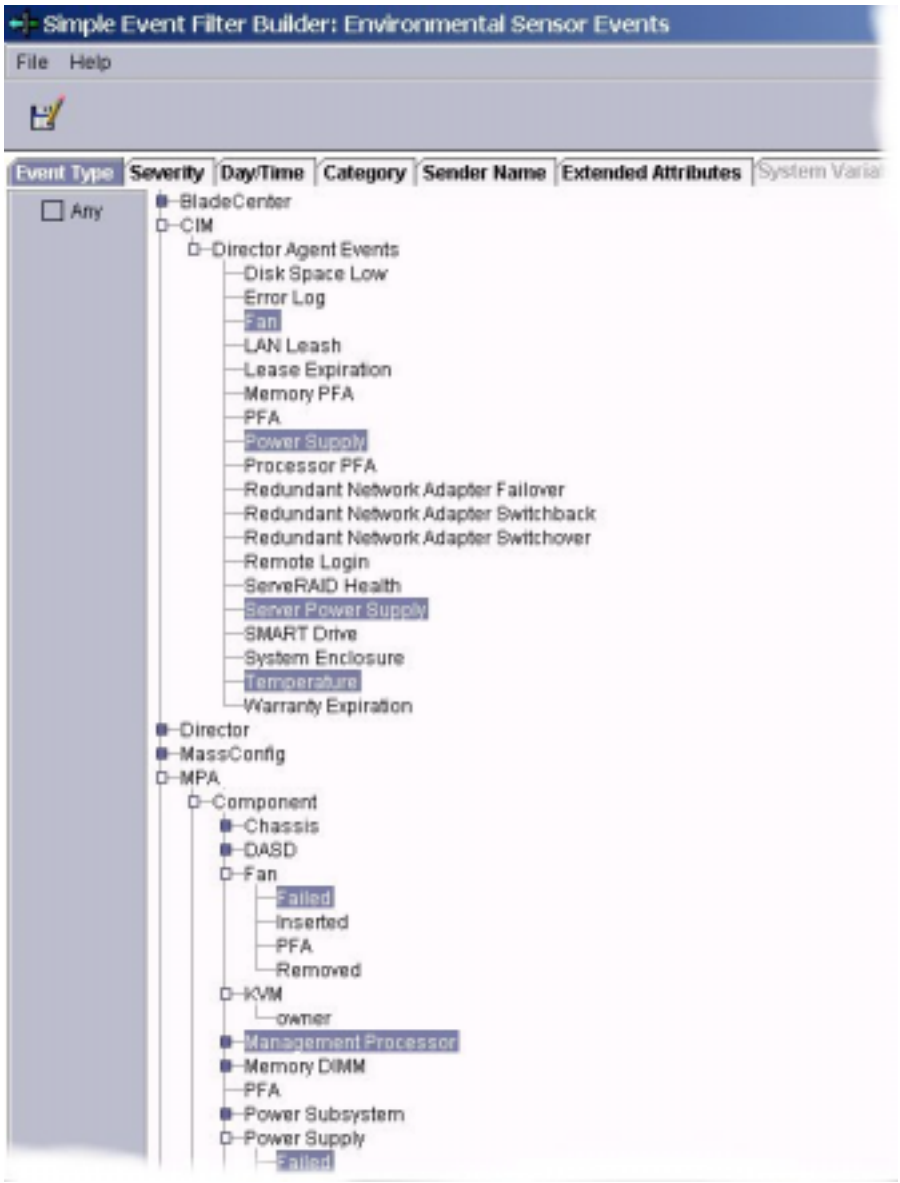
Answer: _____

_____

_____

____3. In the Event Filters pane expand the Simple Event Filter section. All available simple event filters are displayed.

____**4.** Double click on <Environmental Sensor Events> the Simple Event Builder: Environmental Sensor Events window is displayed. The highlighted sensor events are the ones that were added by the EAP Wizard.



____**5.** Close Simple Event Builder: Environmental Sensor Events window

Congratulations you have completed this lab.

Lab 8 – IBM Director 4.0: Hardware Status

Introduction

In this lab, you will use Director 4.0 to determine IBM BladeCenter™ hardware status.

Objectives

At the completion of this lab exercise, you will be able to do the following:

- Use the MM via Director to execute all the management processor tasks.

Materials Required for Lab

- One IBM Director 4.0 server. (Lab was written using beta build 29a of Director 4.0)
- BladeCenter BIOS 6.0a

Firmware, Beta Code and SIT Hardware disclaimer

These labs were developed on SIT hardware and Beta builds 30a-50B of IBM Director 4.0. The firmware used was at the following levels (and will not match some of the pictures contained in this lab):

IBM Blade Bios = BRE114AUS Version 1
ISMP ROM Build Level = BR8T13a

Management Module firmware =	Main Application firmware	BRET26A
	Boot ROM firmware	BRBR26A
	Remote Control firmware	BRRG26A

Ethernet Switch firmware = 46

As a result these labs may not work identically on GA hardware and software. The labs will be revised when GA code and hardware are available.

Time Required for Lab

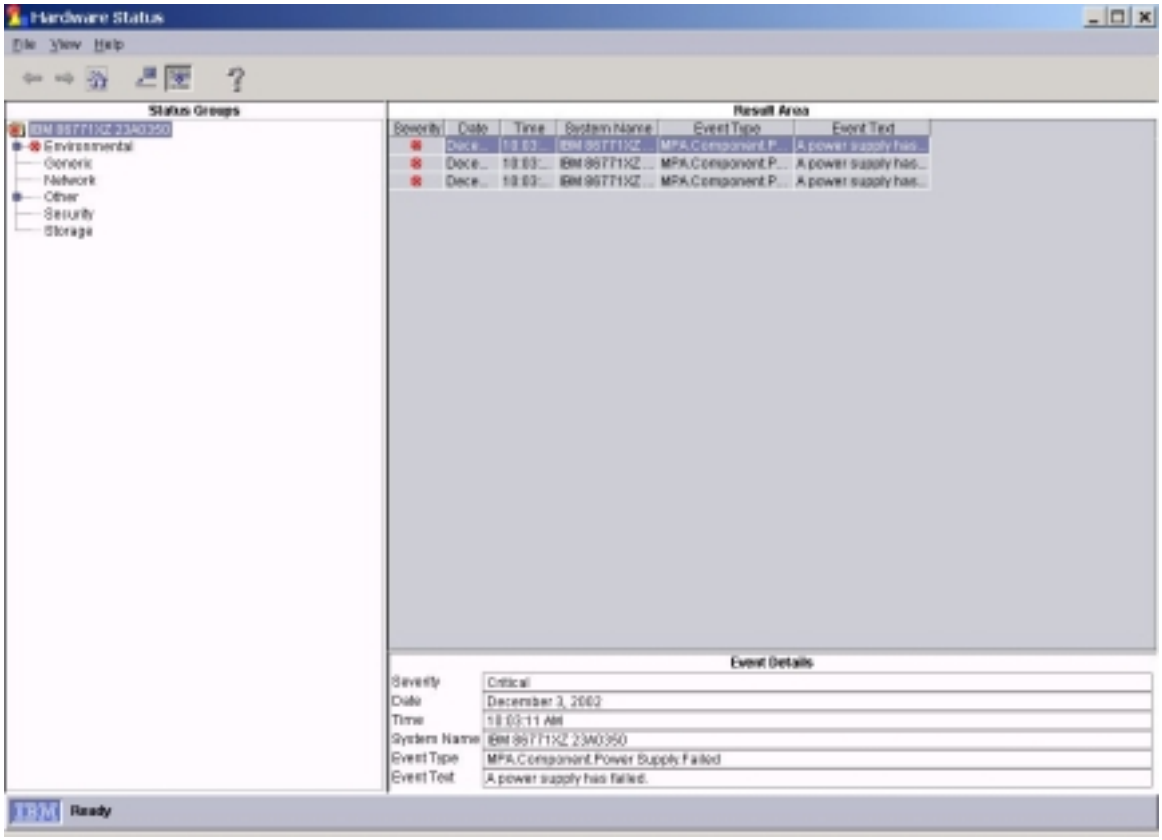
The time required to efficiently complete this lab exercise is 30 minutes.

Directions – Using Hardware Status Task

____**1.** Check the Health Icons in the bottom corner of the Director Console screen to see if any systems in your environment need attention. If any are active they will have a number beside the icon to identify how many systems are affected. In the Groups pane highlight the corresponding icon the affected systems will be displayed in the Group Contents pane.

Note: If no health icons are active, unplug a power supply to activate the icon.

____**2.** To obtain detailed information on the system drag the Hardware Status task on to the system in the Group Contents pane.



____**3.** Notice all generated errors will appear in the Result Area of the Hardware Status screen. Highlight one of the events to view the Event Details in the bottom of the screen.

Congratulations you have just used the Hardware Status Task to gain valuable information for doing PD in your environment.

Lab 9 – IBM Director 4.0: Update Assistant

Introduction

In this lab, you will use Director 4.0 Update Assistant to create IBM software update packages for distribution in the next lab.

Objectives

At the completion of this lab exercise, you will be able to do the following:

- Use Director 4.0 Update assistant to create IBM software update packages for distribution in the next lab.

Materials Required for Lab

- One IBM Director 4.0 server. (Lab was written using beta build 44a of Director 4.0)
- MM firmware =
- BladeCenter BIOS 6.0a

Firmware, Beta Code and SIT Hardware disclaimer

These labs were developed on SIT hardware and Beta build 50B of IBM Director 4.0. The firmware used was at the following levels (and will not match some of the pictures contained in this lab):

IBM Blade Bios = BRE114AUS Version 1
ISMP ROM Build Level = BR8T13a

Management Module firmware =	Main Application firmware	BRET26A
	Boot ROM firmware	BRBR26A
	Remote Control firmware	BRRG26A

Ethernet Switch firmware = 46

As a result these labs may not work identically on GA hardware and software. The labs will be revised when GA code and hardware are available.

Time Required for Lab

The time required to efficiently complete this lab exercise is 30 minutes.

Directions – Using Update Assistant to import IBM updates

____**1.** Double click <Software Distribution> in the Tasks pane. Double click <Director Update Assistant> the Build – Director Update Assistant window is displayed.

Build -Director Update Assistant
This Wizard helps you import IBM updates. For example, UpdateXpress or Director Pay Tool packages. The packages can be for Windows or Linux. You can import a single package or a group of packages. Select the XML file that describes a package or a group of packages.
Get files from the local system.
Get files from the Director server.
XML file:
Browse...
◄ Back
Next ►
Cancel
Help
IBM
Ready

This lab is not complete. Software Distribution Package must be created for use in the following lab exercise.

Lab 10 – IBM Director 4.0: Software Distribution

Introduction

In this lab, you will use Director 4.0 to distribute IBM prepared software packages.

Objectives

At the completion of this lab exercise, you will be able to do the following:

- Use the Director 4.0 software distribution feature to distribute Update Assistant created software packages .

Materials Required for Lab

- One IBM Director 4.0 server. (Lab was written using beta build 44a of Director 4.0)
- BladeCenter BIOS 6.0a

Firmware, Beta Code and SIT Hardware disclaimer

These labs were developed on SIT hardware and Beta build 50B of IBM Director 4.0. The firmware used was at the following levels (and will not match some of the pictures contained in this lab):

IBM Blade Bios = BRE114AUS Version 1
ISMP ROM Build Level = BR8T13a

Management Module firmware =	Main Application firmware	BRET26A
	Boot ROM firmware	BRBR26A
	Remote Control firmware	BRRG26A

Ethernet Switch firmware = 46

As a result these labs may not work identically on GA hardware and software. The labs will be revised when GA code and hardware are available.

Time Required for Lab

The time required to efficiently complete this lab exercise is 30 minutes.

Directions – Distributing Update Assistant Software Packages

____**1.** Expand the Software Distribution task in the Tasks pane. Select <All Software Distribution Packages> all the packages available for distributions from this Director Server are displayed.

____**2.** Drag and drop the software package you created in the previous lab to the appropriate hardware in the Group Contents pane.

Lab 11 – IBM Director 4.0: Flash ID Light and power on / off remotely

Introduction

In this lab, you will use Director 4.0 to locate systems and power them on and off.

Objectives

At the completion of this lab exercise, you will be able to do the following:

- Use the Director 4.0 to flash the blue light on a system.
- Use Director 4.0 to power systems on and off.

Materials Required for Lab

- One IBM Director 4.0 server. (Lab was written using beta build 44a of Director 4.0)
- BladeCenter BIOS 6.0a

Firmware, Beta Code and SIT Hardware disclaimer

These labs were developed on SIT hardware and Beta build 50B of IBM Director 4.0. The firmware used was at the following levels (and will not match some of the pictures contained in this lab):

IBM Blade Bios = BRE114AUS Version 1
ISMP ROM Build Level = BR8T13a

Management Module firmware =	Main Application firmware	BRET26A
	Boot ROM firmware	BRBR26A
	Remote Control firmware	BRRG26A

Ethernet Switch firmware = 46

As a result these labs may not work identically on GA hardware and software. The labs will be revised when GA code and hardware are available.

Time Required for Lab

The time required to efficiently complete this lab exercise is 15 minutes.

Directions – Identify the Blade and power it on and off remotely

____**1.** In the Groups pane select <Chassis and Chassis Members>. All the Chassis (BladeCenters) and Chassis Members (Blades) will appear in the Group Contents pane.

____**2.** Right Click the (or one of the) BladeCenter(s) and Select <Blue Light> and <LED Strobe> in the drop down list. When prompted, Select to Execute Now. Do you see a blue light house flashing on the BladeCenters?

You have now identified the BladeCenter where the critical error is located.

____**3.** If there were a Health Check icon associated with any Blade in that Chassis you can at this point shut down that Blade for maintenance. We will pretend that we have a Health Check icon associated with one of the Blades.

____**4.** Right click the Blade that you choose to be defective and Select <Blue Light> and <LED Strobe> in the drop down list. When prompted, Select to Execute Now. Do you see a blue light house flashing on the Blade?

____**5.** Now power off that Blade by Right clicking the Blade in the Group Contents pane and Select <Power Management> and <Power off>.

____**6.** Please turn the Blade back on and turn off all blue lights (Hint: You can turn off all blue lights in one step.)before going on the next lab

Congratulations you have successfully located the BladeCenter and the specific Blade Server that may have a Health Check light on.

Lab 12 – IBM Director 4.0: Uninstall

Introduction

In this lab, you will uninstall IBM Director 4.0.

Objectives

At the completion of this lab exercise, you will be able to do the following:

- Uninstall IBM Director 4.0 completely.

Materials Required for Lab

- One IBM Director 4.0 server. (Lab was written using beta build 44a of Director 4.0)
- BladeCenter BIOS 6.0a

Time Required for Lab

The time required to efficiently complete this lab exercise is 15 minutes.

Directions – Uninstalling IBM Director 4.0

____**1.** Close the IBM Director Console.

____**2.** Open a command prompt on the IBM Director Server and type **net stop twgipc** when the Director Support program has stopped successfully close the command prompt.

____**3.** From the Windows Control Panel open Add Remove Programs the Add/Remove Programs window is displayed select <IBM Director Server> and select <Remove>

____**4.** Select <Yes> when prompted Are you sure….?

____**5.** Select <Yes> when prompted Do you want to delete the Director Configuration data?

____**6.** When finished close the Add/Remove Programs window.

____**7.** If you want to completely remove the directory structure for IBM Director, navigate to c:\Program Files\IBM\Director and delete the Director folder.

Congratulations you have completed the lab exercises for these courses!